

1     **What Is Claimed Is:**

1           1.     A demand dispatching method, comprising the steps  
2     of:  
3           receiving a first demand;  
4           dividing the first demand into a low risk demand having  
5                 a first order rate and a high risk demand having  
6                 a second order rate;  
7           determining an expected quantity of a first  
8                 fabrication; and  
9           dispatching a first quantity of the low risk demand and  
10                 a second quantity of the high risk demand to the  
11                 first fabrication according to the expected  
12                 quantity, and the first order rate and the second  
13                 order rate for the low risk demand and the high  
14                 risk demand, respectively.

1           2.     The demand dispatching method as claimed in claim  
2     1, wherein the step of dispatching the first quantity of the  
3     low risk demand and the second quantity of the high risk  
4     demand to the first fabrication utilizes a dispatching rule  
5     as follows:

6            $EQ = FQ * FOR + SQ * SOR$ ,  
7           wherein EQ is the expected quantity, FQ is the first  
8                 quantity, FOR is the first order rate, SQ is the  
9                 second quantity, and SOR is the second order  
10                 rate.

1           3.    The demand dispatching method as claimed in claim  
2    1 further comprising dispatching a third quantity of the low  
3    risk demand of a second demand dispatched to a second  
4    fabrication to the first fabrication if the difference  
5    between the expected quantity and the first quantity is  
6    exceeding a predetermined ratio of the expected quantity.

1           4.    The demand dispatching method as claimed in claim  
2    3 further comprising dispatching a remnant quantity of the  
3    high risk demand of the first demand to the second  
4    fabrication.

1           5.    The demand dispatching method as claimed in claim  
2    3 further comprising the steps of:  
3           monitoring the variation in the first quantity of the  
4           low risk demand of the first fabrication; and  
5           dispatching a pilot order to the first fabrication if  
6           the variation in the first quantity of the low  
7           risk demand shows a downward trend.

1           6.    A demand dispatch system, comprising:  
2           a risk database recording risk information for a first  
3           demand; and  
4           an allocation planning module to receive the first  
5           demand, divide the first demand into a low risk  
6           demand having a first order rate and a high risk  
7           demand having a second order rate according to  
8           the risk information, determine an expected

9           quantity of a first fabrication, and dispatch a  
10           first quantity of the low risk demand and a  
11           second quantity of the high risk demand to the  
12           first fabrication according to the expected  
13           quantity, and the first order rate and the second  
14           order rate for the low risk demand and the high  
15           risk demand, respectively.

1           7.    The demand dispatch system as claimed in claim 6,  
2           wherein the allocation planning module dispatches the first  
3           quantity of the low risk demand and the second quantity of  
4           the high risk demand to the first fabrication utilizing a  
5           dispatching rule as follows:

6            $EQ = FQ * FOR + SQ * SOR$ ,  
7           wherein EQ is the expected quantity, FQ is the first  
8           quantity, FOR is the first order rate, SQ is the  
9           second quantity, and SOR is the second order  
10           rate.

1           8.    The demand dispatch system as claimed in claim 6,  
2           wherein the allocation planning module further dispatches a  
3           third quantity of the low risk demand of a second demand  
4           dispatched to a second fabrication to the first fabrication  
5           if the difference between the expected quantity and the  
6           first quantity is exceeding a predetermined ratio of the  
7           expected quantity.

1           9.    The demand dispatch system as claimed in claim 8,  
2    wherein the allocation planning module further dispatches a  
3    remnant quantity of the high risk demand of the first demand  
4    to the second fabrication.

1           10.   The demand dispatch system as claimed in claim 6,  
2    wherein the allocation planning module further monitors the  
3    variation in the first quantity of the low risk demand of  
4    the first fabrication, and dispatches a pilot order to the  
5    first fabrication if the variation in the first quantity of  
6    the low risk demand shows a downward trend.

1           11.   A demand dispatching method in an IC foundry,  
2    comprising the steps of:  
3           receiving a first demand for a first IC product;  
4           dividing the first demand into a low risk demand having  
5                a first order rate and a high risk demand having  
6                a second order rate;  
7           determining an expected quantity of a first  
8                fabrication; and  
9           dispatching a first quantity of the low risk demand and  
10               a second quantity of the high risk demand to the  
11               first fabrication according to the expected  
12               quantity, and the first order rate and the second  
13               order rate for the low risk demand and the high  
14               risk demand, respectively.

1           12. The demand dispatching method as claimed in claim  
2 11, wherein the step of dispatching the first quantity of  
3 the low risk demand and the second quantity of the high risk  
4 demand to the first fabrication utilizes a dispatching rule  
5 as follows:

6            $EQ = FQ * FOR + SQ * SOR,$

7           wherein EQ is the expected quantity, FQ is the first  
8           quantity, FOR is the first order rate, SQ is the  
9           second quantity, and SOR is the second order  
10          rate.

1           13. The demand dispatching method as claimed in claim  
2 11 further comprising dispatching a third quantity of the  
3 low risk demand of a second demand for a second IC product  
4 dispatched to a second fabrication to the first fabrication  
5 if the difference between the expected quantity and the  
6 first quantity is exceeding a predetermined ratio of the  
7 expected quantity.

1           14. The demand dispatching method as claimed in claim  
2 13 further comprising dispatching a remnant quantity of the  
3 high risk demand of the first demand to the second  
4 fabrication.

1           15. The demand dispatching method as claimed in claim  
2 11 further comprising the steps of:  
3           monitoring the variation in the first quantity of the  
4           low risk demand of the first fabrication; and  
5           dispatching a pilot order for a third IC product to the  
6           first fabrication if the variation in the first  
7           quantity of the low risk demand shows a downward  
8           trend.

1           16. A demand dispatch system in an IC foundry,  
2 comprising:  
3           a risk database recording risk information for a first  
4           demand for a first IC product; and  
5           an allocation planning module to receive the first  
6           demand, divide the first demand into a low risk  
7           demand having a first order rate and a high risk  
8           demand having a second order rate according to  
9           the risk information, determine an expected  
10          quantity of a first fabrication, and dispatch a  
11          first quantity of the low risk demand and a  
12          second quantity of the high risk demand to the  
13          first fabrication according to the expected  
14          quantity, and the first order rate and the second  
15          order rate for the low risk demand and the high  
16          risk demand respectively.

1           17. The demand dispatch system as claimed in claim 16,  
2 wherein the allocation planning module dispatches the first  
3 quantity of the low risk demand and the second quantity of  
4 the high risk demand to the first fabrication utilizing a  
5 dispatching rule as follows:

6            $EQ = FQ \cdot FOR + SQ \cdot SOR,$

7           wherein EQ is the expected quantity, FQ is the first  
8           quantity, FOR is the first order rate, SQ is the  
9           second quantity, and SOR is the second order  
10          rate.

1           18. The demand dispatch system as claimed in claim 16,  
2 wherein the allocation planning module further dispatches a  
3 third quantity of the low risk demand of a second demand for  
4 a second IC product dispatched to a second fabrication to  
5 the first fabrication if the difference between the expected  
6 quantity and the first quantity is exceeding a predetermined  
7 ratio of the expected quantity.

1           19. The demand dispatch system as claimed in claim 18,  
2 wherein the allocation planning module further dispatches a  
3 remnant quantity of the high risk demand of the first demand  
4 to the second fabrication.

1           20. The demand dispatch system as claimed in claim 16,  
2 wherein the allocation planning module further monitors the  
3 variation in the first quantity of the low risk demand of  
4 the first fabrication, and dispatches a pilot order for a  
5 third IC product to the first fabrication if the variation

6 in the first quantity of the low risk demand shows a  
7 downward trend.

1 21. A method of IC product manufacturing, comprising  
2 the steps of:  
3 receiving a first demand for a first IC product;  
4 dividing the first demand into a low risk demand having  
5 a first order rate and a high risk demand having  
6 a second order rate;  
7 determining an expected quantity of a first  
8 fabrication;  
9 dispatching a first quantity of the low risk demand and  
10 a second quantity of the high risk demand to the  
11 first fabrication according to the expected  
12 quantity, and the first order rate and the second  
13 order rate for the low risk demand and the high  
14 risk demand, respectively;  
15 receiving a purchase order for the first IC product;  
16 and  
17 manufacturing the first IC product corresponding to the  
18 purchase order in the first fabrication.

1 22. The method of IC product manufacturing as claimed  
2 in claim 21, wherein the step of dispatching the first  
3 quantity of the low risk demand and the second quantity of  
4 the high risk demand to the first fabrication utilizes a  
5 dispatching rule as follows:

6 
$$EQ = FQ * FOR + SQ * SOR,$$

7 wherein EQ is the expected quantity, FQ is the first  
8 quantity, FOR is the first order rate, SQ is the



9                   second quantity, and SOR is the second order  
10                   rate.

1           23. The method of IC product manufacturing as claimed  
2           in claim 21 further comprising dispatching a third quantity  
3           of the low risk demand of a second demand for a second IC  
4           product dispatched to a second fabrication to the first  
5           fabrication if the difference between the expected quantity  
6           and the first quantity is exceeding a predetermined ratio of  
7           the expected quantity.

1           24. The method of IC product manufacturing as claimed  
2           in claim 23 further comprising dispatching a remnant  
3           quantity of the high risk demand of the first demand to the  
4           second fabrication.

1           25. The method of IC product manufacturing as claimed  
2           in claim 21 further comprising the steps of:  
3           monitoring the variation in the first quantity of the  
4           low risk demand of the first fabrication; and  
5           dispatching a pilot order for a third IC product to the  
6           first fabrication if the variation in the first  
7           quantity of the low risk demand shows a downward  
8           trend.

1           26. An IC product produced by the process of:  
2           receiving a first demand for the IC product;  
3           dividing the first demand into a low risk demand having  
4                 a first order rate and a high risk demand having  
5                 a second order rate;  
6           determining an expected quantity of a first  
7                 fabrication;  
8           dispatching a first quantity of the low risk demand and  
9                 a second quantity of the high risk demand to the  
10                 first fabrication according to the expected  
11                 quantity, and the first order rate and the second  
12                 order rate for the low risk demand and the high  
13                 risk demand, respectively;  
14           receiving a purchase order for the IC product; and  
15           manufacturing the IC product corresponding to the  
16                 purchase order in the first fabrication.

1           27. The IC product as claimed in claim 26, wherein the  
2           step of dispatching the first quantity of the low risk  
3           demand and the second quantity of the high risk demand to  
4           the first fabrication utilizes a dispatching rule as  
5           follows:

6           
$$EQ = FQ \cdot FOR + SQ \cdot SOR,$$

7           wherein EQ is the expected quantity, FQ is the first  
8           quantity, FOR is the first order rate, SQ is the second  
9           quantity, and SOR is the second order rate.

1           28. The IC product as claimed in claim 26 further  
2 comprising dispatching a third quantity of the low risk  
3 demand of a second demand for a second IC product dispatched  
4 to a second fabrication to the first fabrication if the  
5 difference between the expected quantity and the first  
6 quantity is exceeding a predetermined ratio of the expected  
7 quantity.

1           29. The IC product as claimed in claim 28 further  
2 comprising dispatching a remnant quantity of the high risk  
3 demand of the first demand to the second fabrication.

1           30. The IC product as claimed in claim 21 further  
2 comprising the steps of:  
3           monitoring the variation in the first quantity of the  
4           low risk demand of the first fabrication; and  
5           dispatching a pilot order for a third IC product to the  
6           first fabrication if the variation in the first  
7           quantity of the low risk demand shows a downward  
8           trend.